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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,353	09/02/2004	Masayoshi Miwa	120957	9957
25944	7590	03/31/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			PARKER, FREDERICK JOHN	
			ART UNIT	PAPER NUMBER
			1762	
DATE MAILED: 03/31/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/506,353

Applicant(s)

MIWA ET AL.

Examiner

Frederick J. Parker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9-2-04;2-24-06</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Specification***

3. The disclosure is objected to because of the following informalities: the brackets [] on line 28 of page 9 are unnecessary. Appropriate correction is required.

### ***Claim Objections***

4. Claims 18,21 are objected to because of the following informalities: (1) claim 18 appears intended to be a Markush Group but is in improper format (use of “such as” makes the group open ended), see MPEP 803.02. (2) Claim 21; the claim 18 appears to be intended to be a Markush Group but is in improper format (use of “a group”, “or a compound...more” ), see MPEP 803.02. The phrase “one or two or more” is confusing and ambiguous because “one or

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more” encompasses two, so what does the phrase really mean? On line 2, “materials” should be singular in context. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 13,15,16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claims 13,15,16 are vague and indefinite because the relative term “fine” fails to convey the intended particle size, the term would have many meanings to those skilled in the art, and the specification merely exemplifies preferred sizes on page 4. It is also noted particle size is a critical aspect of the invention, specification page 4, 5-10 and page 12, 10-15.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 12,13,16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 63-168517.

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JP 63-168517 discloses a method of applying information (alpha-numeric characters, bar codes, etc per claim 18) onto outer surfaces (fig. 2, etc) of cellular honeycomb catalyst supports made of ceramic components including cordierite, alumina, mullite LiAl Silicate, aluminum titanate, titania, zirconia, silicon or aluminum nitride, etc [0034]. The information may be applied by stamping (inherently a transfer method), laser, ink jet printing, etc [0022-23] per claim 19-20. The applied information, in turn, is over-coated by transparent water-repellent materials such as resin or silica sol (silica in water, [0049] per claims 13,17). The over-coating forms an impregnated, water-resistant portion of the cellular material about the applied information to prevent mottling and loss of clarity of the information by providing protection against the capillary flow/ oozing of applied catalyst solution through porous walls of the inner cells of the honeycomb in which catalyst solution is applied, as described in [0026-27]. The reference therefore anticipates claims 12,13,16-21 as provided.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claim 22 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 63-168517.

The reference discloses a porous ceramic honeycomb, which has thereon information (alpha-numeric characters, bar codes, etc) which in turn is coated/ impregnated by transparent water-repellent materials such as resin or silica sol. The product would be the same as, or only slightly different from, that of claim 22. The patentability of a product is based upon the product itself as claimed, and not upon its method of production. If the product of a product-by-process claim is the same or obvious from a product of the prior art, it is unpatentable even though the processes of making may be different. It is the burden of Applicant to establish an unobvious difference between the claimed product and that of the prior art, MPEP 2113.

12. Claims 14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-168517 and optionally in view of Hawley's.

JP 63-168517 is cited for the same reasons previously discussed, which are incorporated herein. While specific particle sizes of the silica sol are not cited, sols are a type of colloid by definition, colloids having a particle size of 1-100 nm which encompasses the range of claim 15. Hawley's is provided as support, although it remains the Examiner's position that this would have been known to one of ordinary skill. One of ordinary skill would have recognized the selection of finer particle sizes would have been advantageous to close off even fine sized open

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porosity to prevent capillary migration of detrimental catalyst fluids in the vicinity of the coated information, such that the selection of particle sizes of claim 15 would have been obvious. While the specific water: silica composition of the overcoat is not cited, it is the Examiner's position that one of ordinary skill would have developed the formula through routine experimentation to meet the requirements of the reference, namely to provide a resistant overcoat to protect the information for a cellular material of a given porosity/ pore size distribution.

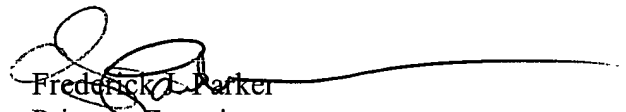
It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the method of JP 63-168517 using sols of sufficient particle size to form an impregnated, water-resistant portion of the cellular material to prevent mottling and loss of clarity of the applied information by providing protection from the capillary flow of subsequently applied catalyst solution.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frederick L. Parker  
Primary Examiner  
Art Unit 1762

fjp